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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,092	11/13/2003	Lawrence J. Karr	50037.0065USD4	9493
27488 7590 07/11/2008 MERCHANT & GOULD (MICROSOFT) P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903				
EXAMINER				
NGUYEN, DUC M				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/714,092

**Applicant(s)**

KARR ET AL.

**Examiner**

DUC M. NGUYEN

**Art Unit**

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 April 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 30-33 and 44-59 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 30-33, 44-49 and 56-59 is/are rejected.  
7) ☒ Claim(s) 50-55 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This action is in response to applicant's response filed on 4/22/08. Claims 30-33, 44-59 are now pending in the present application. **This action is made final.**

#### *Claim Objections*

1. Claim 50 is objected to because of the following informalities:
  - "a method" should be changed to "A method" in line 1 of the claim. Further, a preamble similar to the preamble in claim 30 should be included in the claim in order to particular point out the subject matter of the claim.Appropriate correction is required.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims **30-33, 44-45, 49** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kaiser (US 6,060,996)** in view of **Cameron (US 2002/0051499)** and **Fattouche et al (US 6,192,068)**.

Regarding claim **30**, **Kaiser** discloses a method of re-broadcasting data transmitted over an FM subcarrier (see col. 2, lines 4—44, col. 4, lines 17-22), comprising:

- receiving at a localcast transmitter (see Fig. 8, ref. 130) said transmitted data (see col. 2, lines 23-40), wherein the mobile paging transceiver 130 would read on the "localcast transmitter";

- locally formatting said transmitted data for local-area wireless transmission (see col. 4, lines 17-54), wherein locally formatting the transmitted data includes encoding, the transmitted data at a data encoder when retransmitting using a first transmission speed or retransmitting using a second transmission speed (see Fig. 3 and col. 2, line 48-53, col. 4, lines 45-46), wherein it is clear that when the mobile paging transceiver 130 receives a message from satellite and retransmitting the message in a SWIFT or MSB protocol to a pager, two transmission speed would have been be utilized (see col. 4, lines 19-22, 45-46; and

- retransmitting said locally formatting data to a local-area (see Fig. 8 and col. 2, lines 23-40, col. 4, lines 19-22).

However, **Kaiser** fails to teach the step of bypassing an encoder when using a second transmission speed. However, **Cameron** discloses an encoder which comprises a RS coder and a turbo coder (see Fig. 2 and [0091]), wherein **Cameron** further discloses that the system encoder bypasses the turbo encoder for a higher data rate (see Fig. 2 and [0071]). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further incorporate Cameron's teaching to Kaiser to

utilize encoders with a bypass as claimed, for increasing the data transmission rate when transmitting data using SWIFT protocol (i.e, not performing Turbo coding when the signal quality is very good). Note also that the claimed "localcast transmitter with an encoder bypass" is just an "intended use" of **Cameron's** teaching in a localcast transmitter.

As to newly added claimed limitation regarding an interleaver for interleaving encoded data, it is noted that Cameron further teaches an interleaver 225 before the turbo encoder. Since one skilled in the art would recognize that the interleaver is just used to randomize (or reordering) the order of data, and that the interleaver could be placed either before or after the encoder as disclosed by **Fattouche** (see col. 8, lines 48-50), it would have been obvious to one skilled in the art at the time the invention was made to further modify Cameron and Kaiser to provide an interleaver after the turbo encoder as claimed, as an alternative of design choice noting that it has been held that rearranging parts of an invention involved only routine skill in the art. *In re Japikse*, 86 USPQ 70 (CCPA 1950).

Regarding claims **31-32**, the claims are rejected for the same reason as set forth in claim 30 above. In addition, since the "local content" or "application information" are information data received at the "localcast device", and would be re-transmitted to mobile devices when needed (i.e, upon request by a mobile device). Therefore, it would have been obvious for the localcast transmitter to retransmit "local content" or "application information" as claimed, for supplying information data upon request by mobile devices.

Regarding claim **33**, the claim is rejected for the same reason as set forth in claim 30 above. In addition, since the mobile paging transceiver 130 is a "mobile device", this would read on the "first mobile device", the pager 110 would read on a "second mobile device" (see Fig. 1, noting that the mobile paging transceiver 130 is mounted on a "vehicle").

Regarding claim **44**, the claim is rejected for the same reason as set forth in claim 30 above. In addition, it is clear that **Kaiser** would disclose the low power link uses a locally-unused FM frequency for retransmitting data in the local area (see col. 5, lines 16-37).

Regarding claim **45**, the claim is rejected for the same reason as set forth in claim 44 above. In addition, it is clear that **Kaiser** would disclose a controller be utilized as disclosed by for setting a desired transmission frequency, setting a desired transmission mode (i.e, localcast mode or broadcast mode), and signal power (i.e, low power link) as claimed (see col. 5, lines 17-37).

Regarding claim **49**, Kaiser would disclose generating an FM frequency output from the transmitted data as claimed (see col. 5, lines 17-37).

4. Claims **46-48** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Kaiser** in view of **Cameron** and **Fattouche** and further in view of **Chadwick** (US 5,168,271).

Regarding claims **46-48**, the claims are rejected for the same reason as set forth in claim 30 above. In addition, since such features as recited in the claims (i.e, adding

correlation, interleaving and format baseband samples) are known features of an encoder/modulator as disclosed by **Chadwick** (see Fig. 2 and col. 4, line 36 – col. 6, line 22), it would have been obvious to one skilled in the art at the time the invention was made to provide the encoder/modulator in Chadwick's teaching to the transceiver in Kaiser as well, for improving data reception errors.

5. Claims **56-59** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kaiser** in view of **Cameron** and **Fattouche** and further in view of **Gaskill et al (US 5,301,358)**, hereafter Gaskill'358, and **Gaskill et al (US 4,713,808)**, hereafter Gaskill'808.

Regarding claim **56**, the claim is rejected for the same reason as set forth in claim 30 above, wherein the paging network would inherently comprise a broadcast transmitter (see **Kaiser**, Fig. 1 regarding ref. 108). However, **Kaiser** fails to teach a variable tuning antenna for the mobile device. However, Gaskill'358 teaches a variable tuning antenna for a mobile device (see Abstract, Fig. 1), wherein the antenna is periodically retuned during a listener interval, prior to the receipt of a packet of information (see col. 3, lines 1-20). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to incorporate teaching of Gaskill'358 to Kaiser to provide a variable tuning antenna for the paging transceiver in Kaiser as well, for improving data reception quality. Since the broadcast data in Kaiser would obviously, if not **implicitly**, be scheduled for transmission as disclosed by Gaskill'808 (see col. 21, lines 12-17), Kaiser in view of Gaskill's references, would teach a paging transceiver

that adjusts a variable tuning element configured to tune an antenna in response to a scheduled message reception as claimed, for improving data reception quality.

Regarding claim 57, the claim is rejected for the same reason as set forth in claim 56 above. In addition, since the mobile paging transceiver 130 is a "mobile device", this would read on the "first mobile device", the pager 110 would read on a "second mobile device" (see Fig. 1, noting that the mobile paging transceiver 130 is mounted on a "vehicle").

Regarding claim 58, the claim is rejected for the same reason as set forth in claim 56 above. In addition, since the "local content" or "application information" are information data received at the "localcast device", and would be re-transmitted to mobile devices when needed (i.e., upon request by a mobile device). Therefore, it would have been obvious for the localcast transmitter to retransmit "local content" or "application information" as claimed, for supplying information data upon request by mobile devices.

Regarding claim 59, the claim is interpreted and rejected for the same reason as set forth in claim 56 above.

#### ***Allowable Subject Matter***

6. Claims 50-55 would be allowable if rewritten or amended to overcome the objection(s) set forth in this Office action.

#### ***Response to Arguments***



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7. Applicant's arguments with respect to claims 30-33, 44-59 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. **Any response to this final action should be mailed to:**

Box A.F.

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

Art Unit: 2618

(571) 273-8300 (for **formal** communications intended for entry)

(571)-273-7893 (for informal or **draft** communications).

Hand-delivered responses should be brought to Customer Service Window,  
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry concerning this communication or communications from the examiner  
should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893,  
Monday-Thursday (9:00 AM - 5:00 PM).

Or to Nay Maung (Supervisor) whose telephone number is (571) 272-7882.

/Duc M. Nguyen/

Primary Examiner, Art Unit 2618.

July 1st, 2008